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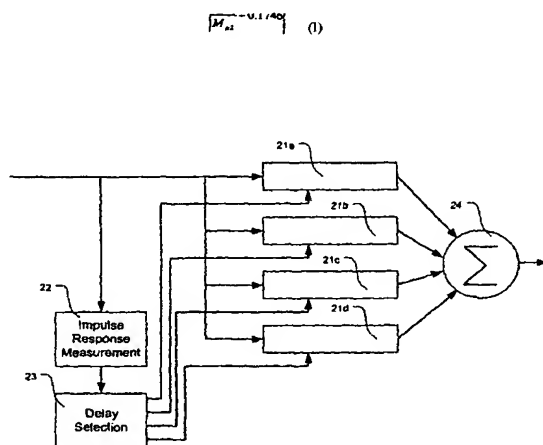
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(54) Title: **RAKE RECEIVER**



(57) Abstract: A DSP subsystem (3) implements four conventional rake fingers (21a, 21b, 21c, 21d), a conventional impulse response measurement process (22) and a delay selection process (23). A received signal is supplied to the impulse response measurement process (22), which outputs up to eight delay and magnitude values notionally corresponding to different paths. Each delay and magnitude value pair relates to one peak in the impulse response of the input signal. The output of the impulse response measurement process (22) is then processed by the delay selection process (23) to select the four best paths. The delay selection process (23) calculates the temporal distances between the delays output by the impulse measurement process. If any peaks are temporally separated by a period characteristic of the separation of main and side lobes of filters for producing the baseband pulse shape expected by the receiver (in the embodiment 1.5 chips) are found, for each pair the following is calculated (I): where  $M_{p1}$  and  $M_{p2}$  are the magnitudes of the peaks. The resultant values are compared with 0.0643 and, if lower, the peak of the pair having the lower magnitude is removed from the set of peaks output by the impulse response measurement process (22).

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